PATERSON GROUP

memorandum

re: **Response to City Comments**
Proposed School Development
620 Triangle Street – Ottawa, Ontario

to: Robinson Consultants Inc. – **Brandon MacKechnie** – bmackechnie@rcii.com
cc: Ottawa Catholic School Board – **Donald Wood** – donald.wood@ocsb.ca
date: September 17, 2025
file: PG7249-MEMO.02

Further to your request and authorization, Paterson Group (Paterson) has prepared the current memorandum to provide geotechnical responses to City of Ottawa comments regarding the current geotechnical investigation report (Geotechnical Report PG7249-1 dated September 9, 2024) prepared for the aforementioned site.

City Comments

Comment C4: *Discussion and recommendations of the permeability of the existing soils should be included in the report, due to the recommended infiltration targets associated with the site from the Fernbank Master Servicing Study.*

Response: The permeability of the subsoils present at the subject site have been discussed in detail in Paterson Memorandum PG7249-MEMO.01 dated April 2, 2025. In summary, based on the presence of impermeable silty clay soils across the subject site, infiltration-based Low Impact Development measures are not considered suitable for the subject site.

Comment C5: *Section 5.3 specifies conventional shallow spread footings placed on "silty sand" can be designed for 100 kPa SLS and 150 kPa (ULS). The report specified that the soil is classified as silty clay at depths below 1.45m. Do these bearing capacities apply to the existing silty clay soils? Please revise this section accordingly.*

Response: As mentioned in the current geotechnical investigation report (Geotechnical Report PG7249-1 dated September 9, 2024), silty clay can be designed using a bearing resistance value at serviceability limit states (SLS) of 150 kPa and a factored bearing resistance value at ultimate limit state (ULS) of 225 kPa.

Comment C6: *Provide a memo or section in the report confirming review of the civil grading and servicing plans and its conformity to the geotechnical recommendations.*

Response: Reference should be made to our memorandum PG7249-MEMO.03 which provides the grading plan review. In summary, the proposed grading is acceptable from a geotechnical perspective.

Comment D6: *Section 4.3. the groundwater depths were measured on August 26, 2024. Seasonally high groundwater elevations are required to be obtained. Please provide results for the spring melt. Robinson Land Development's civil servicing report references spring 2025 seasonally high groundwater results at ground surface elevation. Provide these results in the report and include further geotechnical recommendations due to these findings.*

Response: The seasonally high groundwater elevations have been measured at the subject site and have been discussed in detail in Paterson Memorandum PG7249-MEMO.01 dated April 2, 2025. Geotechnical recommendations have been outlined in the above-noted memorandum. In summary, based on the presence of impermeable silty clay soils across the subject site, infiltration-based Low Impact Development measures are not considered suitable for the subject site.

Comment D7: *Specify in the report the anticipated underside of footing depth for the building and discuss the associated recommendations for foundations at that depth.*

Response: Based on the current grading, the currently provided bearing resistance values will be confirmed as suitable during the detailed design stage as part of Paterson's review of the preliminary and detailed structural design.

Comment D8: *Reference should be made to the overarching subdivisions geotechnical report specified in the pre-consultation feedback, and discussion should be included about its associated recommendations and how the current recommendations align/differ. For example: in the subdivisions geotechnical report titled "Geotechnical Investigation, Proposed Residential Development, 590 Hazeldean Road – Ottawa, Report #PG2930-1, prepared by Paterson Group, dated July 22, 2013" it recommends a maximum grade raise of 1.5m for this area. Yet, the current report specifies 1.8m within 6m of building and up to 2m elsewhere.*

Response: It should be noted that in the latest revision of the referenced overarching subdivision geotechnical report (Paterson Group Geotechnical Report PG2930-1 Revision 1 dated March 23, 2022) was reviewed and considered at the time of preparing the subject Geotechnical Report. The permissible grade raise recommendation for the subject area has been recommended to 1.8 m, which is consistent with the permissible grade raise recommendation provided in the geotechnical report for the subject site.

Comment D9: *The previous subdivision geotechnical report (mentioned in the previous comment) performed consolidation testing to determine bearing resistance values whereas the current report does not seem to include discussion of consolidation testing. Provide justification for why consolidation testing was not required for accurate bearing capacity determination, and reference to the subdivisions geotechnical report should be made.*

Response: Consolidation testing was not undertaken to assess bearing resistance values as part of the previous investigation. Paterson undertook consistent field-testing methodologies throughout the subject site, and the historical overarching site, to confirm in-situ stiffness of subsoils for the assessment of the recommended bearing resistance values for the proposed buildings foundations.

Based on our review of all available testing, the bearing resistance values provided in the current report are satisfactory for mitigating overstressing the in-situ soils considering the proposed grading from a geotechnical perspective.

We trust that this information is satisfactory for your immediate requirements.

Best Regards,

Paterson Group Inc.

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